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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,219	07/23/2001	Juha Rasanen	975.350USW1	4905

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EXAMINER

APPIAH, CHARLES NANA

ART UNIT PAPER NUMBER

2686

14

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,219

Applicant(s)

RASANEN, JUHA

Examiner

Charles Appiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 22-42 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 22-33, 36-37, 39, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vercauteren (5,504,935)** in view of **Fallgren et al. (EP 0 504 122)**.

Regarding claims 22 and 39 Vercauteren discloses a method and a network interworking device for interworking between different radio access networks comprising at least two radio access networks, comprising: a radio transceiver device capable of operating with a first radio access network (land radio access network), and a second radio access network (satellite radio access network) is attached to the first radio access network (see col. 7, lines 55-67, col. 14, lines 11-30). Vercauteren discloses making handover decisions by carrying out a tracking step in which measurement data are collected and forwarded to a controlling base station for a decision and execution of the hand-over decision to be made, wherein the quality of radio access links are tracked, measured, organized and forwarded to be implemented in making and executing the handover decision (see col. 10, line 6 to col. 11, line 20), which meet the steps of accessing information on conditions for the first and the second radio access network for giving sufficient support for a service requested by the

service request and analyzing whether or not the first radio access network and the second radio access network meets the conditions, and initiating a handover of the radio transceiver device from the first radio access network to the second radio network if the second radio access network meets the conditions but the first radio access network does not. Vercauteren thus meets all claimed limitations except the feature of specifically detecting a service request, the service request being received from the network side.

The concept of a network initiated service request such as handoff is very well known in the art as taught for example by Fallgren. Fallgren discloses a neighbor-assisted handoff system in which a serving base station or a neighboring base station may initiate a handoff request when the signal strength or quality of one of its mobile stations fall below a predetermined threshold (see col. 2, line 48 to col. 3, line 21). According to Fallgren, information on conditions for a first radio connection and a second radio connection is accessed for giving sufficient support for a service request, with an analysis as to whether or not the a first radio connection or a second radio connection meets the conditions for a handoff to be initiated based on the analyzed conditions (see col. 10, line 25 to col. 11, line 46, col. 14, lines 29-52).

It would therefore have been obvious to one of ordinary skill in the art to combine the network initiated handoff request method of Fallgren with the mobile communication network path selection system of Vercauteren in order to improve the quality and flexibility of service in mobile cellular communication systems as taught by Fallgren.

Regarding claims 23 and 24 Vercauteren as modified by Fallgren further discloses wherein the conditions comprise a condition whether the requested service exists in the radio access network, wherein the conditions depend on each other (see Vercauteren, col. 10, lines 15-38).

Regarding claim 25, Vercauteren as modified by Fallgren further discloses that one of the conditions for the first radio access network is a given amount lower than the corresponding condition for the second radio access network (see Fallgren, col. 15, lines 1-16).

Regarding claim 26 and 27, Vercauteren further discloses that the method can be performed in the radio transceiver device or performed in a network control device (see col. 5, lines 8-35).

Regarding claim 28, Vercauteren further shows informing the radio transceiver device of the fact that a handover to the second radio access network is to be initiated (see col. 5, lines 36-55).

Regarding claims 29 and 30 Vercauteren further teaches that the radio transceiver device is a dual-mode phone which is adapted to be operated in the first radio access network (see col. 3, lines 53-64 and the second radio access network with either the first or second radio access network being a GSM network (see col. 9, lines 11-20).

Regarding claim 31, Vercauteren further shows that either the second or the first radio access network is a UMTS network (see col. 2, lines 61-67).

Regarding claims 32 and 33 Vercauteren further discloses that the service request is a circuit-switched service as well as a packet-switched service (see col. 2, line 61 to col. 3, line 2).

Regarding claims 36 and 37, Vercauteren further discloses that the radio transceiver device is attached to the first radio access network such that it is located in a cell of the first radio access network and connected by air with the first radio access network (see Figs. 1 and 4).

Regarding claims 40 and 41 Lintulampi further shows that the interworking device is arranged in the radio transceiver device and arranged in a network control device (see col. 3, lines 10-52).

3. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vercauteren and Fallgren et al** as applied to claim 22 above, and further in view of **Grube et al. (WO 95/24809)**.

Regarding claims 34 and 35 Lintulampi does not specifically disclose wherein an error procedure is initiated when it is detected in the analyzing step that the requested service is not available in any of the networks and in which the error procedure is a notification of the user.

Grube discloses a method for providing alternate communication services based on the geographic location of a target communication unit (see abstract). According to Grube and as illustrated in Fig. 2, when a communication unit initiates a service request identifying a target communication unit in a predetermined geographic region and it is determined that the service is prohibited in that region, a search for an

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alternate service is instituted and if an alternate service is not available, the requesting communication unit is denied the request a denial message is provided as a notification of the denial request (see steps 200-210).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Grube by notifying the unavailability of a service request to the requesting communication unit with the communication system of Vercauteren as modified by Fallgren for the benefit of avoiding wasting of communication resources when a service request cannot be fulfilled with the available resources.

4. Claims 38 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vercauteren and Fallgren et al** as applied to claims 22 and 39 above, and further in view of **Karmi (5,884,157)**.

Regarding claims 38 and 42, Vercauteren and Fallgren fail to explicitly teach wherein the analyzing step also analyzes whether a subscriber using the radio transceiver is entitled to use the requested service, as well as the analyzing means being connected to a database for obtaining information regarding conditions of the requested service.

Karmi discloses a method that provides an HLR Interface Facility disposed between the HLR and different customer service databases in a method for supporting multiple service providers as well as interworking facilities (see abstract). According to Karmi, a database query is generated in response the response to the reception of a service request message in order to determine whether a user of a subscriber station subscribes to a service requested in the service request as well as seeking

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authentication of the subscriber service before providing an expensive service (see col. 4, lines 30-63), reading on determining whether the requesting subscriber is entitled to use the requested service and obtaining information regarding the conditions of the requested service.

It would therefore have been obvious to one of ordinary skill in the art to provide the above teaching of Karmi by providing a database storing subscriber profile information including service options with the system of Vercauteren as modified by Fallgren for the benefit of ensuring that only properly allowed subscribers have access to available requested services.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Byrne (5,737,703) discloses a multi-mode radiotelephone, which executes handoff from one radiotelephone system to another radiotelephone system. Hagting et al. (WO 97/15160) discloses a method for performing handover between different radio access units.

Hart (WO 93/06683) discloses a communication system with communication transfer between different communication domains.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 306-0377.

CA
October 26 2003


CHARLES APPIAH
PRIMARY EXAMINER